

AMENDMENTS TO THE CLAIMS

Please amend claims 1, 2, 7, 8, and 13, such that the status of the claims is as follows:

1. (Currently amended) A concrete pumping truck having a forward end and a rear end with a hopper carried at the rear end of the concrete pumping truck, the concrete pumping truck comprising an auxiliary axle system pivotally attached to the rear end of the truck adjacent the hopper, the auxiliary axle system comprising a pair of pivotable wheels and a pair of spaced wheel mounts, each wheel mount being pivotally connected to a respective one of the pair of pivotable wheels, the pivotable wheels being movable between a first position in contact with a ground surface and a second position elevated above the ground surface, the first and second positions and any positions in transition between the first and second positions allowing for always maintaining the auxiliary axle system to remain forward of a farthest rearward point of the concrete pumping truck hopper carried at the rear end, excluding any point a boom on the concrete pumping truck is able to reach, as well as remain under any obstruction above the auxiliary axle system that is created by the concrete pumping truck.

2. (Currently amended) A concrete pumping truck having a forward end and a rear end with a hopper carried at the rear end of the concrete pumping truck, the concrete pumping truck comprising an auxiliary axle system pivotally attached to the rear end of the truck adjacent the hopper, the auxiliary axle system comprising:

a pair of pivotable wheels movable between a first position in contact with a ground surface and a second position elevated above the ground surface;

a U-shaped frame having a pair of rearwardly extending spaced arms connected at forward ends to a cross member, the pair of spaced arms having a free rearward ends connected to a pair of spaced wheel mounts, each of the pair of spaced wheel mounts being pivotally connected to a respective one of the

pair of pivotable wheels, the rearwardly extending spaced arms defining an open space between the wheel mounts that provides clearance for the wheel mounts and pivotable wheels to be raised into the second position without interference with the hopper such that the respective wheel mounts and wheels are stored on opposite sides of the hopper in the second position such that the first and second positions and any positions in transition between the first and second positions always maintain the auxiliary axle system to remain forward of a farthest rearward point of the hopper carried at the rear end, excluding any point a boom on the concrete pumping truck is able to reach, as well as remain under any obstruction above the auxiliary axle system that is created by the concrete pumping truck;

a first connector arm and a second connector arm connected to the cross member and extending in a direction opposite the direction of the pair of spaced arms, the first and second connector arms pivotally mounted to a respective truck frame rail on the concrete pumping truck; and

means connected to a support surface of the concrete pumping truck and the U-shaped frame for moving the auxiliary axle system between the first position and the second position.

3. (Original) The concrete pumping truck of claim 2 and further comprising a mounting bracket connected to each of the truck frame rails at the rear end of the concrete pumping truck, each mounting bracket connected to a housing containing a bearing, wherein the first connector arm and the second connector arm are pivotally connected to a respective bearing housing.

4. (Original) The concrete pumping truck of claim 2, wherein the means for moving the auxiliary axle system comprises at least one hydraulic cylinder connected between an outrigger support frame and the U-shaped frame.

5. (Previously presented) The concrete pumping truck of claim 2 wherein each of the pair of pivotable wheels comprises a steering arm connected to the wheel, the steering arm of each wheel being connected by a tie rod.

6. (Original) The concrete pumping truck of claim 5 wherein the tie rod is configured with a central portion and opposing end portions, the central portion of the tie rod being in a first plane and the opposing end portions being in a second plane spaced from the first plane.

7. (Currently amended) An auxiliary axle system for a concrete pumping truck having a truck frame and a hopper carried at a rear end of the truck, the axle system comprising:

means connected to the truck frame for supporting a pair of wheels in a spaced relationship from the rear end of the truck adjacent to the hopper, the means including a pair of spaced wheel mounts, each wheel mount being pivotally connected to a respective one of the pair of wheels; and

means connected to a support structure of the concrete pumping truck for raising and lowering the auxiliary axle system between an upper storage position and a lower ground-engaging position, wherein the auxiliary axle system always remains forward of a farthest rearward point of the concrete pumping truck hopper carried at the rear end excluding any point a boom is able to reach, as well as remains under any obstruction above the auxiliary axle system that is created by the concrete pumping truck when the auxiliary axle system moves between the two positions or rests at one of the positions.

8. (Currently amended) An auxiliary axle system for a concrete pumping truck having a truck frame and a hopper carried at a rear end of the truck, the axle system comprising:

means connected to the truck frame for supporting a pair of wheels in a spaced relationship from the rear end of the truck adjacent to the hopper and always maintaining the auxiliary axle system forward of a farthest rearward point of the concrete pumping truck hopper carried at the rear end, wherein the means for supporting the pair of wheels comprises:

a pair of spaced short wheel mounts, each wheel mount of the pair of wheel mounts being pivotally attached to a respective one of the pair of wheels;

a U-shaped frame having a base at a forward end of the U-shaped frame connected to a pair of rearwardly extending arms, each arm of the pair of arms having a free rearward end connected to a respective one of the pair of wheel mounts, wherein the rearwardly extending spaced arms define an open space between the wheel mounts that provides clearance for the wheel mounts and pivotable wheels to fit around and store on either side of the hopper;

a first connector arm connected between a first frame rail of the truck frame and the base of the U-shaped frame; and

a second connector arm connected between a second frame rail of the truck frame and the base of the U-shaped frame, the first connector arm being spaced from the second connector arm; and

means connected to a support structure of the concrete pumping truck for raising and lowering the auxiliary axle system.

9. (Original) The auxiliary axle system of claim 8, wherein the means for raising and lowering the auxiliary axle system comprises:

at least one hydraulic cylinder connected between the U-shaped frame and a support surface of the concrete pumping truck.

10. (Original) The auxiliary axle system of claim 9, wherein each arm of the pair of arms of the U-shaped frame comprise a pair of mounting flanges, a first end of the at least one hydraulic cylinder being connected between the pair of mounting flanges.

11. (Original) The auxiliary axle system of claim 9, wherein the support surface of the truck comprises an outrigger support frame connected to the truck frame at the rear end of the concrete pumping truck.

12. (Original) The auxiliary axle system of claim 8 and further comprising:

a steering arm connected to each wheel of the pair of wheels; and
a tie rod pivotally connected between each steering arm, the tie rod having opposing end portions connected to each steering arm, the opposing end portions being generally aligned with the hopper, the tie rod further having a central portion connected to each of the respective opposing end portions, the central portion configured to be spaced from the hopper.

13. (Currently amended) An auxiliary axle system for a concrete pumping truck having a truck frame and an outrigger support frame connected to and elevated from the truck frame at a rear end of the concrete pumping truck adjacent to a hopper, the auxiliary axle system comprising:

a pair of wheels located adjacent to and on either side of the hopper;
a pair of spaced short wheel mounts, wherein each wheel mount of the pair of spaced wheel mounts is pivotally connected to a respective one of the pair of wheels;
a pair of support arms, each support arm having a rearward end and a forward end, the rearward end being connected to a respective one of the pair of spaced short wheel mounts and extending transverse from the pair of spaced short wheel mounts;
a cross member connected to the forward ends of the pair of support arms, the cross member being longitudinally spaced forward from the pair of wheels, the

cross member and the pair of support arms defining a U-shaped frame wherein an open space between the rearward ends of the arms of the U-shaped frame is large enough to allow the U-shaped frame to fit around the hopper;

a first set of attachment arms connected between the cross member and a first truck frame rail of the truck frame and a second set of attachment arms connected between the cross member and a second truck frame rail; and

a lift mechanism connected between the U-shaped frame and a support surface of the concrete pumping truck, said lift mechanism always maintaining the pair of wheels adjacent to the hopper forward of a farthest rearward point of the concrete pumping truck hopper carried at the rear end.

14. (Original) The auxiliary axle system of claim 13, wherein the lift mechanism comprises at least one hydraulic cylinder connected to at least one of the pair of support arms.

15. (Original) The auxiliary axle system of claim 13, wherein the lift mechanism comprises a pair of hydraulic cylinders, each hydraulic cylinder of the pair being connected to a respective one of the support arms.

16. (Previously presented) The auxiliary axle system of claim 13 and further comprising a tie rod connected between the pair of wheels, the tie rod having opposing end portions and a central portion defined by first and second spaced bends in the tie rod, the central portion configured to be spaced forward from the hopper to allow space for the rearward ends of the U-shaped frame to fit around the hopper when the auxiliary axle system is in a raised position.

17. (Previously presented) The auxiliary axle system of claim 13 and further comprising a pair of support plates connected to the cross member, each of the support plates being connected to one of the pair of support arms.